

85609

The Solubility of Carbon Dioxide in  
Methyl Ethyl Ketone, Ethyl Acetate,  
and Toluene at Low Temperatures Under Pressure

S/064/60/000/005/011/021/xx  
B024/8070

$RT \ln f_2/N_2 = RT \ln K - A' \cdot N_2$  (1) ( $f_2$  = volatility of  $\text{CO}_2$ ;  $N_2$  = molar fraction of  $\text{CO}_2$  in the solution;  $A'$  = a coefficient depending on the pressure but not on the composition of the gas;  $K$  = Henry coefficient). This equation is a generalization of the equation of Sechenov (Ref.5) to binary systems. From the results of the experiments, methyl ethyl ketone and ethyl acetate may be recommended as the most efficient solvents for  $\text{CO}_2$ . There are 8 figures, 4 tables, and 6 references:

3 Soviet, 1 German, 1 US, and 1 British.

Card 2/2

SHEIDEREY, Ye.R.; ZEL'VENSKIY, Ya.D.; IVANOVSKIY, F.P.

Solubility of carbon dioxide in methyl ethyl ketone, ethyl acetate, and toluene under pressure and at a low temperature.  
Khim.prom. no.5:370-374 Jl-Ag '60. (MIRA 13:9)  
(Carbon dioxide)

37451

S/195/60/001/002/003/010  
B004/B067

26.2153

AUTHORS: Krasil'shchikov, A. I., Antonova, L. G., Ivanovskiy, F. P.

TITLE: Adsorption, Ionization, and Catalytic Activation of Gases  
on Metals

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 2, pp. 212 - 220

TEXT: In the field of gas adsorption and catalysis an increasing number of electron concepts has been developed. Therefore, new investigation methods must be developed. In Refs. 10-12 the authors have developed a new electrochemical investigation method which they describe in this paper. The test equipment is schematically shown in Fig. 1. The reaction tube 1 was made of special glass which becomes conductive on heating and acts as a solid electrolyte. A silver film applied to the outside of the glass served as reference electrode. The authors studied the adsorption of H<sub>2</sub>, CO<sub>2</sub>, C<sub>2</sub>H<sub>4</sub>; a mixture of H<sub>2</sub> and C<sub>2</sub>H<sub>4</sub>; CO and N<sub>2</sub>; and a mixture of N<sub>2</sub> and H<sub>2</sub> on the following metals: Cu, Co, Ni, Ag, and Fe. The studies were made in the temperature range of 250 - 425°C. It was found that the

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Adsorption, Ionization, and Catalytic  
Activation of Gases on Metals

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B004/B067

electrochemical potential of gas adsorption depends on the metal used. For the metals considered here, the maximum potential difference was 220-225 mv for H<sub>2</sub>, 300-350 mv for CO, and 750-800 mv for N<sub>2</sub>. In the hydrogenation of ethylene on copper at 250°C, large amounts of ethylene and hydrogen are adsorbed on copper. It is assumed that the activation of C<sub>2</sub>H<sub>4</sub> takes place by the addition of an electron to the metal. viz., probably to the double bond. In the adsorption of CO on Cu, the chemical potential was by 300 - 350 mv more negative than on all other metals. The specific catalytic action of Cu is due to the particularly strong reducing effect of CO adsorbed on Cu. N<sub>2</sub> adsorption on Fe takes place at a potential by 800 mv more positive than on Cu, Co, or Ag. Hence, negative nitrogen ions in appreciable quantities may be formed only on Fe. Only Fe may be used as a catalyst in the synthesis of ammonia. It is assumed that the activation of N<sub>2</sub> on Fe is caused by the formation of uninegative molecular ions. In all cases, a jump in the electrochemical potential occurred when a gas was adsorbed on a metal. This effect was attributed to the formation of gas ions on the metal surface. However,

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Adsorption, Ionization, and Catalytic  
Activation of Gases on Metals

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S/195/60/001/002/003/010  
B004/B067

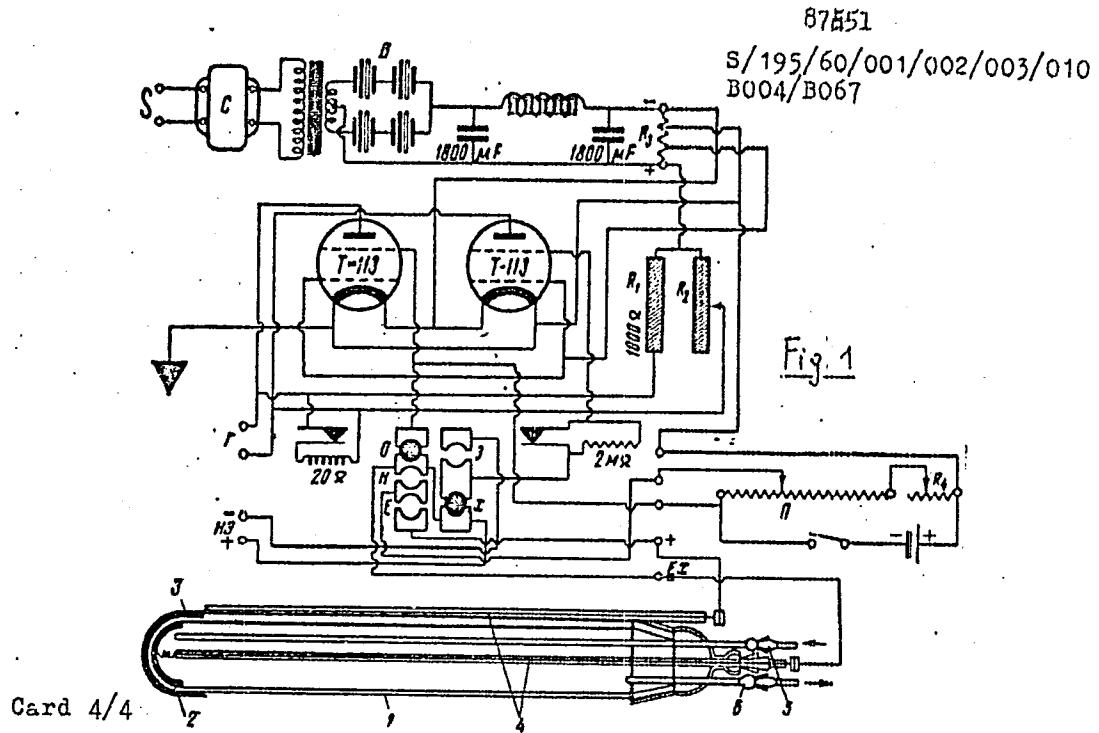
this ionization must not be regarded as gas adsorption. Ionization may follow adsorption, and it is possible that only part of the adsorbed gas is ionized. The formation of molecular gas ions may increase the reactivity of the gas. There are 9 figures and 25 references: 16 Soviet, 3 US, 3 British, 1 French, and 4 German.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut azotnoy promyshlennosti (State Scientific and Research Institute of the Nitrogen Industry).

SUBMITTED: December 22, 1959

Legend to Fig. 1: 1) reaction tube; 2) measuring electrode; 3) reference electrode; 4) platinum contacts; 5) gas inlet; 6) gas outlet; O-H-E-3-K: reversing switch; Ex: measured voltage; H<sub>3</sub>: standard cell; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>: resistors; B: selenium rectifier; C: stabilizer; T: zero galvanometer; Π: potentiometer.

Card 3/4



1914

51190 2206, 1274 u.l.

3/081/6G/CCO/021/010/018  
A005/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 21, p. 50, # 83988

AUTHORS: Ivanovskiy, F. P., Brayde, G. Ye., Semenova, T. A., Lyudkovskaya, B.G.

TITLE: An Investigation of a Carbon Monoxide Conversion Catalyst on the Base of the Oxides of Zinc, Chromium, and Copper

PERIODICAL: Probl. kinetiki i kataliza, 1960, Vol. 10, pp. 90-94

TEXT: The effect of the chemical composition on the catalytic activity and the properties of a low temperature Zn - Cr - Cu catalyst for CO conversion was investigated. It turned out that the catalytic activity increases with increasing Cu content, reaches a maximum at the catalyst composition  $ZnO \cdot Cr_2O_3 \cdot 0.5CuO$ , and then decreases. On the contrary, the activation energy decreases with increasing Cu content, reaches a minimum at the content of 0.5 molecules Cu in the catalyst, and then increases. Therefore, the minimum value of the activation energy corresponds to the maximum activity. It is assumed that the high catalyst activity is connected with the presence of the zinc-chromium spinel in it, which is formed at a lower temperature in the presence of Cu, which activates the catalyst in considerable degree. X

Translator's note: This is the full translation of the original Russian abstract.  
Card 1/1

S/076/60/034/012/012/027  
B020/B067

AUTHORS: Antonova, L. G., Fil'chenkova, T. G., Ivanovskiy, F. P.,  
and Krasil'shchikov, A. I.

TITLE: Adsorption Phenomena in the System Hydrogen - Carbon  
Dioxide - Carbon Monoxide - Water Vapor. II. Adsorption of  
Carbon Monoxide

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,  
pp. 2766-2771

TEXT: The authors attempted to study the electrochemical adsorption potential of carbon monoxide on various metals by using the same methods as described in Ref. 1. The reproducibility of the measurements was approximately  $\pm 25$  mv, the accuracy of measurement was  $\pm 1$  mv. The adsorption experiments with carbon monoxide were made to study the conversion of carbon monoxide with water vapor. CO was purified by passing it through a furnace filled with reduced copper at  $350^\circ$ , furthermore through a furnace filled with copper, precipitated on silica gel at  $250^\circ$ , by a freezing trap at approximately  $-70^\circ$ , askarite, charcoal, and

Card 1/3

Adsorption Phenomena in the System Hydrogen -  
Carbon Dioxide - Carbon Monoxide - Water Vapor  
II. Adsorption of Carbon Monoxide

S/076/60/034/012/012/027  
BO20/BO67

silicagel. At the beginning of the measurements the curves potential versus time took a somewhat irregular course which was, however, equalized after 1.5 to 2 hours. The adsorption of CO by a cobalt film at 250°C (Fig. 1) and of CO and hydrogen on iron at 425°C (Fig. 2), and on nickel at 425°C (Fig. 3) is graphically illustrated. The adsorption diagrams of hydrogen and CO on silver at 425°C (Fig. 4), copper at 425°C (Fig. 5), and after nitrogen adsorption at 425°C (Fig. 6) are also given. Fig. 7 shows the adsorption potentials of carbon monoxide on various metals which clearly express the characteristic behavior of copper. The adsorption potential of carbon monoxide on copper is approximately by 300 mv more negative than in all other metals studied. This fact can be explained by the complex electron structure of carbon monoxide and by the selective character of the adsorption affinity. Actually, copper is usually recommended as specific catalyst for the reaction of CO with oxygen, whereas nickel and iron are used for its reaction with hydrogen. There are 7 figures and 15 references: 12 Soviet, 1 US, and 2 British.

Card 2/3

Adsorption Phenomena in the System Hydrogen - S/076/60/034/012/012/027  
Carbon Dioxide - Carbon Monoxide - Water Vapor B020/B067  
II. Adsorption of Carbon Monoxide

ASSOCIATION: Gosudarstvennyy institut azotnoy promyshlennosti (State  
Institute for the Nitrogen Industry)

SUBMITTED: March 25, 1959

Card 3/3

SHENDERAY, Ye. R.; ZEL'VENSKIY, Ya.D.; IVANOVSKIY, F.P.

Solubility of the mixture of carbon dioxide and hydrogen in  
methyl alcohol at low temperature under pressure. Khim.prom.  
no.5:309-312 My '61. (MIRA 14:6)  
(Carbon dioxide) (Hydrogen) (Methanol)

SHENDEREY, Ye.R.; ZEL'VENSKIY, Ya. D.; IVANOVSKIY, F.P.

Solubility of hydrogen, nitrogen, and methane in methanol under pressure  
at a low temperatures. Gaz. prom. 6 no.3:42-45 '61. (MIRA 14:3)  
(Gases—Purification)

SHENDEREV, Yo.R.; IVANOVSKIY, F.P.

Solubility of acetylene, ethylene, propylene, and carbon dioxide  
in dimethyl formamide at low temperature. Gaz. prom. 7 no. 8: 38-44  
'62. (MIRA 17,10)

LEYTES, I.L.; IVANOVSKIY, F.P.

Solubility of gases in mixtures on nonelectrolytes. Khim.prom.  
no.9:653-657 S '62. (MIRA 15:11)  
(Gases) (Solubility)

SHENDEREY, Ye.R.; ZEL'VENSKIY, Ya.D.; IVANOVSKIY, F.P.

Solubility of ethylene in methanol at low temperatures. Zhur.-  
prikl.khim. 35 no.3:690-693 Mr '62. (MIRA 15:4)  
(Ethylene) (Methanol)

SHENDEREV, Ye.R.; ZEL'VENSKIY, Ya.D.; IVANOVSKIY, F.P. (Moskva)

Ethylene solubility in acetone, methyl ethyl ketone, and  
toluene at low temperatures. Zhur. fiz. khim. 36 no.4:800-807  
Ap '62. (MIRA 15:6)

1. Gosudarstvennyy institut azotnoy promyshlennosti.  
(Ethylene) (Solvents)

IVANOVSKIY, F.P., kand. tekhn. nauk, red.; FURMAN, M.S., doktor khim. nauk, red.; SAMARIN, B.P., red.; KRICHEVSKIY, I.R., prof., doktor khim. nauk, red.; GOLUBEV, I.F., doktor tekhn. nauk, red.; KRASIL'SHCHIKOV, A.I., doktor khim. nauk, red.; KLEVKE, V.A., kand. tekhn. nauk, red.; LEVCHENKO, G.T., kand. khim. nauk, red.; GEL'PERIN, I.I., kand. tekhn. nauk, red.; OYSTRAKH, M.L., red.; KREYSBERG, A.Ya., red.; TSUKERMAN, A.M., red.; KOGAN, V.V., tekhn. red.

[Chemistry and technology of the products of organic synthesis; intermediate products for the synthesis of polyamides] Khimiia i tekhnologiya produktov organicheskogo sinteza; poluprodukty dlia sinteza poliamidov. Moskva, Goskhimizdat, 1963. 255 p. (MIRA 17:3)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyekt-nyy institut azotnoy promyshlennosti. 2. Zamestitel' direktora Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Ivanovskiy). 3. Zamestitel' direktora po nauchnoy chasti Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Furman). 4. Glavnyy inzhener Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Samarin).

SHENDERAY, Ye.R.; IVANOVSKIY, F.P.

Solubility of acetylene, ethylene, propylene, and carbon  
dioxide in N-methylpyrrolidinone and its aqueous solutions.  
Khim. prom. no.2:91-97 F '63. (MIRA 16:7)

(Gases) (Solubility) (Pyrrolidinone)

SHENDEREV, Ye.R.; IVANOVSKIY, F.P.

Separation of acetylene from gases yielded during thermal oxidative pyrolysis of hydrocarbons by using a selective solvent.  
Knim.prom. no.9:650-655 S '63. (MIRA 16:12)

L 18881-63

EPR/EPF(c)/EWT(m)/BDS Ps-4/Pr-4 RM/HW/JW/MAY

ACCESSION NR: AP3006629

S/0076/63/037/009/2125/2127  
*(65)  
67*

AUTHORS: Shenderev, Ye, R.; Ivanovskiy, F. P.

TITLE: Solubility of CO<sub>2</sub> in aqueous solution of dimethylformamide at low temperature

SOURCE: Zh. fizicheskoy khimii, v. 37, no. 9, 1963, 2125-2127

TOPIC TAGS: CO<sub>2</sub> solubility, dimethylformamide, Henry's law

ABSTRACT: Industrial use of aqueous solution of dimethyl-formamide in extraction of acetylene requires a knowledge of the solubility of other gases in this solvent. Present investigation is concerned with solubility of CO<sub>2</sub> in aqueous solution of dimethyl formamide containing up to 20% H<sub>2</sub>O and temperatures from -10 to -55°C. It has been found that, at comparatively low pressure, solubility of CO<sub>2</sub> follows the Henry Law. Values of Henry coefficients were determined and presented in a table. Orig. art. has: 1 figure, 2 tables and 7 equations.

ASSN: State Scientific-research and planning institute for the nitrogen industry and products of organic synthesis.  
*72,*

Card

IVANOVSKIY, F.P.; BRAUDE, G.Ye.; SEMENOVA, T.A.

Kinetics of the interaction of carbon monoxide and steam at elevated pressure. Kin. i kat. 5 no.3:563-564 My-Je '64.  
(MIRA 17:11)  
1. Gosudarstvennyy nauchno-issledovatel'skiy institut azotnoy promyshlennosti.

SHLEYNIKOV, V.M.; TAGINTSEV, B.G.; Prinimali uchastiyet; IVANOVSKIY, F.P.;  
SHENDEREV, Ye.R.

Separating acetylene from gases obtained by the electrocracking  
of methane at low temperatures. Gaz. prom. 9 no.6:38-42 '64.  
(MIRA 17:8)

SHENDEREV, Ye.R.; IVANOVSKIY, F.P.; Prinimali uchastiyes TYURINA, I.S.;  
SERGEYEVA, L.Ye.; DORFMAN, I.M.

Solubility of acetylene in acetone at low temperatures. Zhur.  
prikl.khim. 37 no.7:1557-1562 Jl '64.

(MIRA 18:4)

SHAKHOVA, S.F.; IVANOVSKIY, F.P. [deceased]

Vapor-liquid equilibrium in the system acetone acetylene hydrocarbons. Khim. prom. 41 no.2:26-30 F '65. (MIRA 18:4)

IVANOVSKY, F.P. (deceased); DONTSOVA, V.A.; BARABANSHCHIKOVA, N.F.;  
KAPITIN, I.K.

Chromatographic analysis of the products of the synthesis of  
cycle-octatetraene. Zav.lab. 31 no.3:296 '65.

(MIRA 18:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektornyj  
institut avtotoy promyshlennosti i produktov organicheskogo  
sintezza.

LEYTES, I.L.; IVANOVSKIY, F.P. [deceased]

Solubility of a third component near the critical point of  
an equilibrium liquid - liquid of a binary solution. Zhur.  
fiz. khim. 39 no.6:1511-1514 Je '65. (MIRA 18:11)

1. Gosudarstvennyy institut another promyshlennosti. Submitted  
April 5, 1964.

L10197-66	EWT(m)/EWP(t)/EWP(b)	IJP(c)	JD
ACC NR: AP5028456	SOURCE CODE: UR/0286/65/000/020/0019/0019		
AUTHORS: <u>Miniovich, M. A.</u> , <sup>55</sup> <u>Shneyerson, A. L.</u> , <sup>55</sup> <u>Filippova, Zh. M.</u> , <sup>55</sup> <u>Atroshchenko, V. I.</u> , <sup>55</sup> <u>Zasorin, A. P.</u> , <sup>55</sup> <u>Ivanovskiy, F. P.</u> , <sup>55</sup>			
ORG: none	4/1 B		
TITLE: Method for obtaining nitric acid. <sup>2/5</sup> Class 12, No. 175492 [announced by <sup>55</sup> State Scientific Research and Design Institute for the Nitrogen Industry and Products of Organic Synthesis (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza)]			
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 19			
TOPIC TAGS: nitric acid, nitrogen oxide, nitrogen compound			
ABSTRACT: This Author Certificate presents a method for obtaining nitric acid at a pressure of 4-9 atm by absorbing gaseous nitrogen oxides in water in an absorption tray-type column. To obtain 68-80% nitric acid, liquid oxides of nitrogen are introduced into the column at a point below the formation of 50-63% nitric acid. The reaction may also be carried out by introducing air into the column at a point below which the liquid oxides of nitrogen are introduced.			
SUB CODE: 11/		SUBM DATE: 18Oct63/	
Card 1/1		UDC: 661.56	

ACC NR: AP7001364

(A)

SOURCE CODE: UR/0413/66/030/021/0031/0031

INVENTORS: Ivanovskiy, F. P.; Shteynberg, B. I.; Semenova, T. A.; Markina, M. I.; Kozlov, L. I. Shutov, Yu. M.

ORG: none

TITLE: A catalyst for gas purification. Class 12, No. 187736 (announced by State Scientific Research and Design Institute of the Nitrogen Industry and of Organic Synthesis Products (Gosudarstvennyy nauchno-issledovatel'skiy i proyektornyj institut azotnoy promyshlennosti i produktov organicheskogo sinteza))

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 31

TOPIC TAGS: catalysis, industrial catalyst, gas, zinc oxide, chromium oxide, copper oxide, magnesium oxide, manganese oxide, aluminum oxide, titanium oxide, acetylene, oxygen, nitrogen oxide

ABSTRACT: This Author Certificate presents a catalyst for gas purification. The catalyst contains hydrogen and consists of oxides of zinc, chromium, and copper with admixtures of oxides of magnesium, manganese, aluminum, and titanium. To increase its stability and its activity in freeing gases from acetylene, oxygen, and nitrogen oxides, the oxides of zinc, chromium, and copper are taken in the proportions ZnO : Cr<sub>2</sub>O<sub>3</sub> : CuO = 1.0 to 0.05 : 10.0 to 0.03 : 10.0. Each admixture of the oxides

Card 1/2

UDC: 66.097.3:66.074.3

ACC NR: AP7001364

of magnesium, manganese, aluminum, and titanium may constitute 0.05--15.0% of the basic catalyst composition. Prior to its use, the catalyst may be treated with a hydrogen-containing gas at a temperature of 225--275°C.

SUB CODE: 07 / SUBM DATE: 14Apr64

Card 2/2

IVANOVSKIY, G.

Housing construction in Zaporozh'ye. Zhil. stroi. no. 3:2-4  
Mr '60. (MIRA 13:6)

1. Predsedatel' Zaporozhskogo sovnarkhoza.  
(Zaporozh'ye--Apartment houses)

IVANOVSKIY, G.; SUKHOVA, K.; AYUSHIYEV, A.

Aid technological progress with credit. Den. i kred. 18  
no.7:16-28 J1 '60. (MIRA 13:7)

1. Predsedatel' Zaporozhskogo sovnarkhoza.  
(Credit) (Technological innovations)

IVANOVSKIY, G. A.

Skull - Wounds and Injuries

Dynamics of clinical picture following cranioplasty in gunshot wounds of the  
cranium. Vop. neirokhir. 16, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May <sup>2</sup> 1950, Uncl.

IVANOVSKIY, G.A.; POPYREVA, M.V.; SEREBRENNIKOVA, A.A.

Results of tissue therapy in diseases of the nervous system. Zh.  
nevropat. psichiat., Moskva 53 no.10:804-809 Oct 1953. (CIML 25:4)

1. Clinic of Nervous Diseases and Neurosurgery of Sverdlovsk Medical  
Institute.

SOV/20-122-3-21/57

AUTHORS: Krichevskiy, I. R., Ivanovskiy, G. F., Safronov, Ye. K.

TITLE: The Solubility of Silicon Tetraiodide in Nonaqueous Solvents  
(Rastvorimost' tetraysodida kremniya v nevodnykh rastvoritelyakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 400-402  
(USSR)

ABSTRACT: The recrystallization of the substance mentioned first in the title in nonaqueous solvents is one of the important stages of the purification of the first and serves for the production of highly pure silicon. Since only a limited number of publications dealt with this problem (Refs 1,2) the authors prepared the following paper. As solvents were used: benzene, toluene, xylene, cyclohexane, chloroform, normal octane and silicon tetrachloride. The solubility was determined according to the Alekseyev method (Ref 3). Constant temperatures were kept by means of an oil-thermostat. The mixture was stirred at temperatures close to those of the disappearance of the solid phase. This was enough for the establishment of the equilibrium between the liquid and the solid phase. The curves of solubility are shown on figure 1. The results obtained strongly deviate from data given in

Card 1/2

SOV/20-122-3-21/57

The Solubility of Silicon Tetraiodide in Nonaqueous Solvents

publications (Ref 2). Obviously the latter may be regarded as wrong. It can be supposed from the character of the curves that the solutions investigated are regular. There are 1 figure, 1 table, and 7 references, 1 of which is Soviet.

PRESENTED: May 9, 1958, by S. A. Vekshinskiy, Member, Academy of Sciences, USSR

SUBMITTED: April 25, 1958

Card 2/2

26.2358

852/12  
S/019/60/000/016/052/134  
A152/A029

AUTHORS: Men'shikov, M.I., Ivanovskiy, G.F., Nazarov, A.S., Safronov, Ye.K.

TITLE: A Sorption Vacuum Pump

PERIODICAL: Byulleten' izobreteniy, 1960, No. 16, p. 31

TEXT: Class 27d, 302. No. 131014 (648177/25, December 22, 1959). This sorption vacuum pump with a titanium absorber is distinguished by the following special feature: in order to simplify the pump mechanism and improve its performance, the solid phase condenser of the pump is made in the form of an electrically heated difficulty fusible rod (e.g., of molybdenum, tungsten or tantalum), to which titanium is applied by the iodide method. X

Card 1/1

LEVINTER, M.Kh.; IVANOVSKIY, G.F.; SMIRNOV, N.P.; GALIMOV, Zh.F.; GALINICH,  
Ye.T.

Remolding of catalytic cracking units using a spherical catalyst.  
Khim.i tekhn.topl.i masel 6 no.4:1-6 Ap '61. (MIRA 14:3)

1. Upravleniye nerudnykh iskapayemykh i Novo-Ufimskiy nefteperera-  
baytvayushchiy zavod.  
(Cracking process) (Catalysts)

LEVINTER, M.Kh; IVANOVSKIY, G.F.; SMIRNOV, N.P.; GALINOV, Zh. F.;  
GALINICH, Ye.T.; GIMAYEV, R.N.

Modernization of catalytic cracking units at the Novoufimka  
Petroleum Refinery. Khim. i tekh.topl.i masel 6 no.7:1-6  
J1 '61. (MIRA'14:6)

1. Novo-Ufimskiy neftepererabatyvayushchiy zavod i  
Upravleniye nerudnykh iskopayemykh.  
(Novoufimka—Cracking process—Equipment and supplies)

NAZAROV, A.S.; IVANOVSKIY, G.F.; MEN'SHIKOV, M.I.

Getter-ion pump with straight-channel titanium and chromium  
vaporizers. Prib. i tekhn. eksp. 8 no. 5:157-161 S-0 '63.  
(MIRA 16:12)

IVANOVSKIY, G.F.; GERSHTEYN, I.A.; SAPUNOV, G.S.; BAIMBETOV, A.M.

Continuous-action unit for the production of a demulsifier.  
Nefteper. i neftekhim. no.5:5-6 '64. (MIRA 17:8)

1. Novo-Ufimskiy neftepererabatyvayushchiy zavod.

IVANOVSKIY, G.F.

Novo-Ufimskiy petroleum refinery. Khim. i tekhn. topl. i masel 9  
no.11:28-30 N '64  
(MIRA 18:1)

A1 I 27860-56 EWI(a)/T/EWP(t)/EWP(b)/EWA(c) TJP(o)  
 ACC NR: AP5027175

SOURCE CODE: UR/0076/63/039/010/2464/2469

AUTHOR: Ivanovskiy, G. P.; Shirayev, A. T.

ORG: None

TITLE: Sorption of hydrogen by a condensed titanium film at low pressures

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 10, 1965, 2464-2469

TOPIC TAGS: hydrogen, titanium, gas pressure, sorption, spectrometry, metal film

ABSTRACT: A mass-spectrometric method was used to study the equilibrium pressures of hydrogen over condensed titanium films at pressures of  $10^{-10}$  to  $10^{-7}$  mm Hg and temperatures of 77.2, 113.4, and 178K. At all temperatures, the titanium-hydrogen systems were found to form solutions which obeyed the equation of I. R. Krichevskiy:

$$RT \ln \left( \frac{p_{H_2}}{N_H} \right)^{1/2} = RT \ln k_H + A (1 - N_{Ti})^2,$$

where  $p$  is the hydrogen pressure,  $N_H$  the atomic fraction of dissolved hydrogen,  $k_H$  a constant, and  $N_{Ti}$  the atomic fraction of titanium. Thus, titanium forms concentrated solutions with hydrogen even at low temperatures, and the process of dissolution occurs relatively fast and would not agree with estimates of solution rates which could be obtained by extrapolating the values of the diffusion coefficient of hydrogen in titanium into the region of low temperatures. The applicability of the above equation to liquid-liquid and gas-liquid systems and to concentrated gas-metal solutions

UDC: 541.183+541.17

L 27860-66

ACC NR: AP5027175

is demonstrated. Orig. art. has: 9 figures and 2 equations.

SUB CODE: 07,20 / SUBM DATE: 11Jul64 / ORIG REF: 006 / OTH REF: 006

Card 2/2

L 10515-00

EWT(m)

JW

ACC NR: AP5027187

SOURCE CODE: UR/0076/65/039/010/2594/2595

AUTHOR: Krichevskiy, I. R.; Ivanovskiy, G. P.; Safronov, Ye. K.

ORG: State Institute of the Nitrogen Industry (Gosudarsvennyy institut azotnoy promyshlennosti)

TITLE: Vapor pressure of silicon tetraiodide

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 10, 1965, 2594-2595

TOPIC TAGS: vapor pressure, silicon compound, iodide, heat of sublimation, heat of fusion, PRESSURE MEASUREMENT

**ABSTRACT:** The object of the study was to determine the temperature dependence of the vapor pressure of silicon tetraiodide. The vapor pressure was measured with an isoteniscope, with mercury as the manometer liquid. It had been established first that mercury does not react with silicon tetraiodide. Thermostating was done in an oil thermostat within  $\pm 0.1^{\circ}\text{C}$ . The vapor pressure of silicon tetraiodide was measured in the range from 0.2 to 5 mm Hg. The results are shown below:

$^{\circ}\text{C}$	70.0	72.2	79.7	90.0	100.2	103.2	105.9	109.2	113.3	115.0	119.7
P, mm Hg	0.214	0.24	0.33	0.65	1.37	1.555	1.70	2.24	2.61	2.90	2.48

$^{\circ}\text{C}$	123.0	123
P, mm Hg	4.61	4.95

$$\log p = 9.93 - 367.0 T^{-1}$$

Card 1/2

UINC: 5A1.11+546.28

L 10515-66

ACC NR: AP5027187

The heat of sublimation and the heat of fusion, calculated from experimental data, were found to be 16700 cal/mole and 3700 cal/mole, respectively. Orig. art. has: 1 formula.

SUB CODE: 07 / SUBM DATE: 11Ju164 / ORIG REF: 001 / OTH REF: 003

Card 2/2

KRICHEVSKIY, I.R.; IVANOVSKIY, G.F.; SAFRONOV, Ye.K.

Solubility of titanium tetrachloride in benzene. Zhur.fiz.khim.  
39 no.11:2684 N '65. (MIRA 18:12)

ACC NR: AP6029906

(A, N)

1J1(c) JD/MM/DJ

SOURCE CODE: U4/0413/66/000/015/0070/0071

INVENTORS: Nazarov, A. S.; Makh, E. A.; Ivanovskiy, G. F.; Kuznetsov, M. V.

ORG: none

TITLE: Getter-ion pump. Class 27, No. 184389

SOURCE: Izobrot prom obraz tov zn, no. 15, 1966, 70-71

TOPIC TAGS: ionization, magnetic field, electric field, anode, cathode

ABSTRACT: This Author Certificate presents a getter-ion pump with ionization in the electric and the magnetic fields. The pump contains an anode and an evaporator of the getter substance, serving simultaneously as the cathode (see Fig. 1). To increase the effectiveness of ionization of the residual gases, the anode is made in a spiral shape, while the cathode-evaporator is  $\text{II}$ -shaped in form and is located on the out-

Card 1/2

UDC: 533.582

L 07252-57

ACC NR: AP6029906

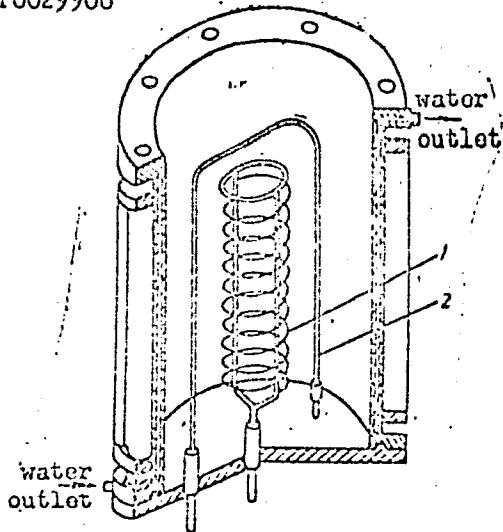


Fig. 1. 1 - anode;  
2 - cathode evaporator

side of the anode in the plane of its axial section. Orig. art. has: 1 figure.

SUB CODE: 13, 20/99/

SUBM DATE: 14Apr65

2634-66 EWT(1)/EWT(m)/EWP(t) IJP(c) AT/JD  
ACC NR: AP5012500

SOURCE CODE: UR/0181/66/008/004/1271/1273

AUTHOR: Ivanovskiy, G. F.; Radzhabov, T. D.

ORG: none

TITLE: Variation in the resistance of titanium films during bombardment by argon ions

SOURCE: Fizika tverdogo tela, v.8, no. 4, 1966, 1271-1273

TOPIC TAGS: titanium, metal film, argon, ion bombardment, resistivity

ABSTRACT: The authors study the change in resistance of titanium films due to bombardment with monoenergetic ions of argon with energies from 0.3 to 4 kev at a current of less than 10  $\mu$ A. The titanium films were vaporized in a high vacuum on a molybdenum glass substrate and silver contacts were electrolytically applied. The resistivity of the film was measured as a function of thickness. The resistivity decreased with an increase in thickness, asymptotically approaching that of the massive metal at thicknesses greater than 1000 Å. The results show that argon ions are readily absorbed by titanium films at 20°C. The resistance of the films increases after bombardment. The change in resistance depends on the thickness of the film, as well as on the energy and number of bombarding ions. The change in resistivity reaches a maximum at energies of 2-2.5 kev, which corresponds to the level of sorption saturation. Absorption saturation level corresponding to the maximum change in resistance is also

Card 1/2

253B4-66

ACC NR: AP6012500

reached when the number of bombarding ions is increased. The interaction between argon atoms and titanium is apparently purely mechanical. Electron interactions between argon and titanium atoms either do not take place or are too weak to be registered. Ar-  
gon ions which penetrate deep into the film and are distributed with depth accord-  
ing to some penetration probability may be treated as a purely mechanically introduced  
impurity which reduces the mobility of free electrons and thus increases the electric-  
al resistance of the film. Orig. art. has: 2 figures, 1 table.

SUB CODE: 20/ SUBM DATE: 020ct65/ ORIG REF: 002/ OTH REF: 005

Card 2/2 N/A

L 45918-66 EWT(1)/EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD  
ACC NR: AP6028621 SOURCE CODE: UR/0057/66/036/008/1469/1474  
AUTHOR: Ivanovskiy, G.F.; Radzhabov, T.D.; Zagorskaya, T.N.  
ORG: none  
TITLE: Mechanism of the sorption of inert gas ions on titanium 27  
SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1469-1474  
TOPIC TAGS: helium, argon, neon, titanium, polycrystal, single crystal, thin film, sorption, ion, METAL SURFACE  
ABSTRACT: In order to elucidate the nature of the two-peak thermal desorption curves associated with the sorption of inert gas ions on pure metallic surfaces, the authors have investigated the sorption from 2 uA beams of 0.8 to 3 keV argon, neon, and helium ions on titanium surfaces. Titanium was selected for the investigation because of its technical importance in connection with high vacuum sorption pumps. Four types of targets were employed: 0.1 $\mu$  films deposited at 10 Å/min on copper substrates and having a grain size of 0.01 to 0.02 mm; a dense sample with a grain size of 0.014 to 0.043 mm; a coarse-grained polycrystalline material with a grain size of 0.5 to 1.0 mm; and a single crystal obtained from titanium iodide by zonal melting in vacuum with an electron beam. The adsorbed ions were desorbed by heating the target to 900°C, and the desorbed atoms were detected and measured with a mass spectrometer and ionization gages. Two-peak desorption curves were obtained for all the gases and for all the targets ex-

Card 1/2

L 45918-66

ACC NR: AP6028621

cept the single crystal, but the low temperature desorption peak became less prominent with decreasing grain size of the target and was entirely absent with the single crystal target. It is concluded that the low temperature desorption peak is due to ions adsorbed in the boundaries between the grains, and that the high temperature desorption peak is due to ions adsorbed on the crystal surfaces themselves and in the crystal lattice. The adatoms adsorbed in the grain boundaries were bound with binding energies between 25 and 35 kilocalories/mole and were desorbed at 300 to 350°C; those adsorbed on the crystal faces were held in the lattice with binding energies between 45 and 50 kilocalories/mole and were desorbed at 600 to 700°C. Helium adsorbed on the single crystal was desorbed at an appreciably higher temperature than were argon or neon. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 20 SUBM DATE: 16Jun65 ORIG. REF: 001 OTH REF: 005

Card 2/2 mjs

ACC NR: AP6036039

SOURCE CODE: UR/0057/66/036/011/2069/2074

AUTHOR: Radzhabov, T.D.; Ivanovskiy, O.F.

ORG: none

TITLE: Ion pumping with a continually renewed sorbent surface

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 11, 1966, 2069-2074

TOPIC TAGS: sorption, inert gas, helium, argon, neon, krypton, xenon, ion beam, metal film, titanium, metal vapor deposition

ABSTRACT: The authors have investigated sorption of argon, helium, neon, krypton, and xenon from up to  $8 \mu\text{A}$  beams of 2-2.5 keV ions on titanium films during deposition of the film at rates from 3 to 50 Å/min. The film was deposited from a direct current heated 22 mm diameter ring of 1.5 mm diameter titanium-molybdenum wire mounted 5 cm from the  $7.08 \text{ cm}^2$  target. The substrate was outgased for 10 minutes at  $700^\circ\text{C}$  under a vacuum of  $10^{-7}$  torr. The ion beam was turned on after the titanium film had reached a thickness of 0.1-0.2 micron and was left on for 10 minutes in all the experiments. The substrate was not cooled and reached temperatures of  $50-60^\circ\text{C}$  during deposition. After the 10 minute sorption period the titanium film target was gradually heated to from  $700$  to  $1000^\circ\text{C}$  during the course of some 15 minutes and the quantity of desorbed gas was measured by recording the changes of pressure in the working volume. From a

Card 1/2

ACC NR: AP6036039

simple calculation it is concluded that the density of sorbed atoms in the growing titanium film is constant above the initial surface and equal to  $B/v$ , where  $B$  measures the intensity of the ion beam and  $v$  is the deposition rate of the film. The proportionality of the density to  $B/v$  was confirmed by the initial behavior of the desorption curves. The total quantity of desorbed gas decreased with increase of  $v$ ; this is ascribed to failure of the gas atoms sorbed deep in the target to diffuse to the surface during the short (15-20 minute) desorption time. Helium was desorbed at higher temperatures than the other investigated gases, and the gases whose atomic diameters exceed the lattice constant of the titanium target (krypton and xenon) were not desorbed at temperatures above 700° C. Orig. art. has: 4 formulas, 4 figures and 5 tables.

SUB CODE: 20 SUBM DATE: 16Jun68 ORIG.REF: 002 OTH REF: 004

Card 2/2

ACC NR: AP6035873

SOURCE CODE: UR/0413/66/000/020/C094/0094

INVENTOR: Ivanovskiy, G. F.; Nazarov, A. S.; Mednikov, M. I.; Makn, E. A.; Baraban-

shchikov, S. K.

ORG: None

TITLE: A sorption vacuum pump. Class 27, No. 187205

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 94

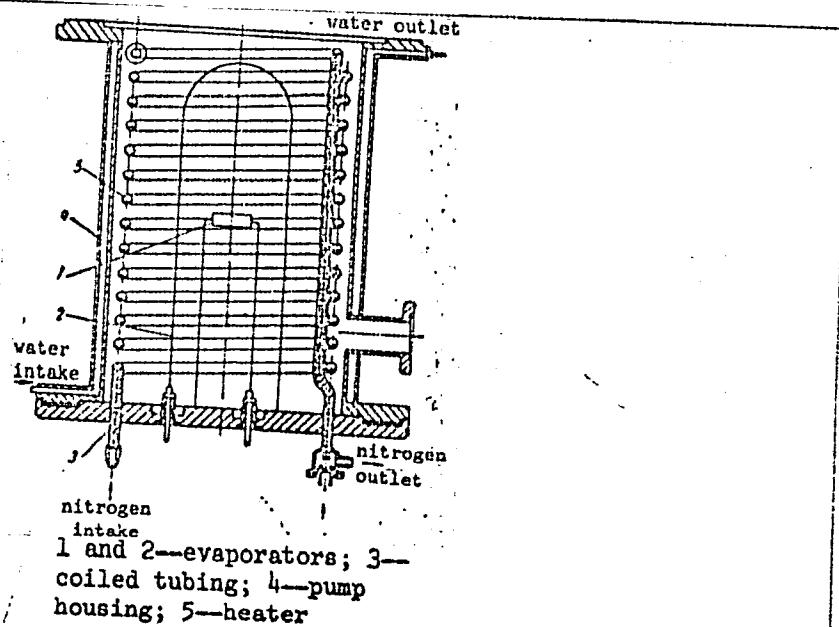
TOPIC TAGS: vacuum pump, sorption

ABSTRACT: This Author's Certificate introduces: 1. A sorption vacuum pump containing a getter substance evaporator located within the sorption surface which is cooled by a low temperature refrigerant. The pumping range is expanded by making the sorption surface in the form of a hollow coiled tube with gaps between the turns. This coil is located within the water-cooled jacket of the pump. 2. A modification of this pump with a heater inside the coil cavity to increase heating efficiency in out-gassing the pump.

Card 1/2

UDC: 533.582

ACC NR: AP6035873



SUB CODE: 13/ SUBM DATE: 15May65

Card 2/2

ACC NR: AP0Q13509

UR/0120/66/0000/02/0102/0108

AUTHOR: Nazarov, A.S.; Ivanovskiy, G.F.; Kuznetsov, M.V.

OTG: None

TITLE: Getter-ionic pumps with directly heated titanium evaporators

SOURCE: Pribory i tekhnika eksperimenta, no.2, 1966, 102-108

TOPIC TAGS: vacuum pump, getter ionic vacuum pump,  
titanium/GIN-5 vacuum pump

ABSTRACT: This paper describes a series of three getter-ionic vacuum pumps with directly heated titanium evaporators. Type GIN-5 has a 5000 liter/sec, type GIN-2 - a 2000 l/sec, and type GIN-05M1 - a 500 l/sec pumping speed. Enumeration, discussion and presentation of pump parameters, and a design drawing and photograph are given. The getter ionic pump are attractive by their simplicity, reliability, convenience of operation and a much smaller weight than electric discharge pumps; however, they are critically vulnerable to air breakthrough. The limit of the getter-ion pump vacuum level is  $3 \cdot 10^{-9}$  torr, with the heater on. The pumping speed can be regulated by the rate of titanium evaporation, which is related in a definite way to the evaporator temperature and its power. The evaporator-heater is a 3 mm dia. U-shaped titanium-molybdenum wire with a titanium reserve of 24 grams. The pump schematic is shown in Fig. 1. Here, 1 - is the central anode; 2 - the heatable anode, 3 - the cathodes; 4 - the directly

Card 1/2

UDC: 621.528.5

IVANOVSKIY, Georgiy Ivanovich [Ivanovs'kyi, H.]; GAK, D.V. [Hak, D.V.],  
kand.ekon.nauk, red.; DANIKO, I.V., referent, red.; KOROBKO,  
V.I., red.

[Zaporozh'ye Economic Region] Zaporiz'kyi ekonomichnyi administra-  
tyvnyi raion. Kyiv, 1959. 38 p. (Tovarystvo dlia poshyrennia  
politychnykh i naukovykh znan' UkrSSR. Ser.2, no.1) (MIRA 12:3)  
(Zaporozh'ye Province--Industries)

-4

IVANOVSKIY, G.I.

Using the method of shifting in renovating blast furnace No.2 of the  
"Zaporozhstal'" Plant. Prom. stroi. 37 no.11:22-28 N '59.  
(MIRA 13:2)

1.Predsedatel' Zaporozhskogo sovnarkhoza.  
(Zaporozh'e--Blast furnaces)

IVANOVSKIY, G.I.

Where N.N. Miklukho-Maklai was born. Geog. v shkole 22 no.1:75  
Ja-F '59. (MIRA 12:4)  
(Miklukho-Maklai, Nikolai Nikolaevich, 1846-1888)

IVANOVSKIY, Georgiy Ivanovich; GRUSHKO, A., red.; PAKHOLYUK, R.,  
khudozh.-tekhn.red.

[The Zaporozh'ye Economic Administrative Region in the  
seven-year plan] Zaporozhskii ekonomichevskii administrativnyi  
raion v semiletke. Zaporozh'e, Zaporozhskoe knizhno-gazetnoe  
izd-vo, 1960. 62 p. (MIXA 13:9)

1. Predsedatel' Zaporozhskogo Soveta narodnogo khozyaystva  
(for Ivanovskiy).  
(Zaporozh'ye Province--Economic policy)

IVANOVSKIY, G.I.

Using standard plans in industrial construction. Prom.stroi.  
(MIRA 13:6)  
38 no.3:8-9 '60.

1. Fredsedatel' Zaporozhskogo sovnarkhoza.  
(Zaporozh'ye Province--Factories--Design and construction)

KHUDOSOVTS~~E~~V, N.M.; IVANOVSKIY, G.I.; SHIL'DKROT, M.A.; SLIVINSKIY, A.I.,  
inzh.; KASHUBA, V.A.

Contribution of construction workers to the creation of a material  
and technical foundation for communism. Prom. stroi. 39 no.9:  
(MIRA 14:10)  
10-29 '61.

1. Predsedatel' Luganskogo sovnarkhoza (for Khudosovtsev). 2.  
Predsedatel' Zaporozhskogo sovnarkhoza (for Ivanovskiy). 3. Zame-  
stitel' predsedatelya Sverdlovskogo sovnarkhoza (for Shil'dkrot).  
4. Zamestitel' predsedatelya Dnepropetrovskogo sovnarkhoza (for  
Slivinskiy). 5. Zamestitel' predsedatelya sovnarkhoza Altayskogo  
kraya (for Kashuba).

(Industrial buildings) (Construction industry)

GEYMAN, M.A.; UGOLEV, V.S.; KALYAYEV, V.A.; YEVDOKIMOV, P.A.; IVANOVSKIY, G.I.

Increasing the effectiveness of oil well acidization by using  
dry ice. Nefteprom. delo no.1:17-19 '64. (MIRA 17:4)

1. Institut nefti AN SSSR i Institut geologii i razrabotki  
goryuchikh iskopayemykh AN SSSR.

IVANOVSKIY, G.S.

IVANOVSKIY, G.S.

Children's swimming school. Zdorov'e 3 no.12:25 D '57. (MIRA 11:1)  
(SWIMMING)

IVANOVSKIY, G.S.

From snowshoes to modern skis. Zdorov'e 5 no.2:25 F '59.  
(MIRA 12:2)  
(Skis and skiing)

IVANOVSKIY, G.V., inshener.

Calculating the spillway of a dam. Gidr.stroi. 22 no.8:25 Ag '53.  
(MIRA 6:8)  
(Spillways)

L 20995-66 EWT(m)

ACCESSION NR: AP5019038

UR/0286/65/000/012/0069/0039

69,057,528

10  
B

AUTHOR: Vorob'yev, A. I.; Ivanovskiy, G. V.; Komarov, A. K.; Tsikhona, V. A.;  
Sandomirskiy, G. B.; Rubinshteyn, G. V.

TITLE: A device for preparing concrete forms. Class 37, No. 172020<sup>15</sup>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1955, 69

TOPIC TAGS: concrete structure, concrete, structural concrete, construction method

ABSTRACT: This Author's Certificate introduces a device for preparing concrete forms. The device is used when the blocks which make up a structure are being joined into a monolithic unit. The apparatus includes a panel which covers the joint, and a clamping attachment. Assembly and disassembly are simplified by making the clamping attachment in the form of a support and pneumatic tubes. The tubes are located between the support and the panel and are drawn together by rods. During setup, the free ends of the rods are connected with support girders located on the other side of the joint. These support girders remain in the structure after the blocks are joined into a single monolithic unit.

Card 1/3

L 2095-65

ACCESSION NR: AP5019038

ASSOCIATION: none

SUBMITTED: 07May63

ENCL: 01

SUB CODE: G0

NO REF Sov: 900

OTHER: 000

Card 2/3

L 20995-66

ACCESSION NR: AP5019038

ENCLOSURE: 01

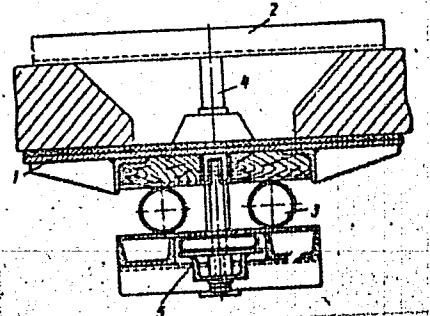


Fig. 1. 1--panel; 2--support;  
3--pneumatic tube; 4--rod;  
5--support girder

Card 3/3 BK

Ivanovskiy, I.

DOLZHANOV, P.; IVANOVSKIY, I.

Specialized trucks and trailers for carrying milk. Avt.transp.  
32 no.3:4-6 Mr '54.  
(MLRA 7:8)  
(Tank trucks) (Milk--Transportation)

IVANOVSKII, I., inzhener; KUZNETSOV, N., inzhener.

An electric grease feeder. Avt.transp.33 no.1:36-37 Ja'55.  
(MLRA 8:3)  
(Automobiles--Lubrication)

IVANOVSKIY, I. G.

Rotov, V. I., Ivanov'skiy, I. G., Sivskiy, A. P. and Senonov, P. Z. "Experimenting with the activity of the serum against swine plague prepared with the application of C<sub>4</sub>C<sub>12</sub> stimulator," Sbornik trudov Khar'k. vet. in-ta, Vol. XIX, Issue 2, 1948, p. 153-60, -

SO: U-4034, 29 Oct 53, (Letopis 'Zhurnal 'nykh Statey, No. 16, 1949).

IVANOVSKIY, I. G. Cand Med Sci -- (diss) "Dynamics of the albumin fractions  
of blood serums ~~during~~ <sup>in</sup> the treatment of brucellosis patients." Mos, 1957.

11 pp (Min of Health USSR. Central Inst for the Advanced Training of Physicians),  
200 copies (KL, 6-58, 102)

USSR / General Problems of Pathology. The Patho-  
physiology of the Infectious Process.

U

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102481.

Author : Ivanovskiy, I. G.

Inst : Not given.

Title : The Change of Proteins of Blood Serum in Patients  
with Brucellosis Under Influence of Treatment With  
Chlortetracycline [Aureomycin] and Vaccine.

Orig Pub: Antibiotiki, 1957, 2, No 4, 16-20.

Abstract: The influence of Chlortetracycline [aureomycin] (I)  
on the proteins of serum was studied in 8 patients  
with acute brucellosis (B) with decompensation and  
expressed toxicosis, who received in the course of  
10-15 days 200,000 units of I each, 4 times per  
day. Along with clinical improvement in 4 patients,

Card 1/4

*Chair of Infectious Diseases  
Central Inst Advanced Training of Physicians*

<sup>42</sup>

GINZBURG, Zakhariy Semenovich; IVANOVSKIY, I.V., red.; ZHITNIKOVA, O.S.,  
tekhn. red.

[Starting motor-vehicle engines in winter] Pusk avtomobil'nykh  
dvigatelei zimoi. Moskva, Gosenergoizdat, 1962. 43 p.  
(MIRA 15:7)

(Motor vehicles—Cold weather operation)

IVANOVSKIY, Konstantin Aleksandrovich; LIVSHITS, Ya.L., red.;  
RAKITIN, I.T., tekhn. red.

[Iran] Iran. Moskva, Izd-vo "Znanie," 1963. 31 p. (Novye  
v zhizni, nauke, tekhnike. VII Seriya: Mezhdunarodnaya, no. 5)  
(MIRA 16:4)

(Iran--Economic policy)

Ivanovskiy, K.Ye.

PHASE I, BOOK EXPLOITATION SOV/4171

Burmistrov, Pavel Ivanovich, Konstantin Yevgen'yevich Ivanovskiy, and Georgiy Matveyevich Nikolayevskiy

Pod'yemno-transportnoye mashinostroyeniye (Construction of MIM Hoisting and Transporting Machinery). Moscow, Mashgiz, 1960. 93 p. (Series: Sovetskoye mashinostroyeniye v 1959-1965 gg.) 2,500 copies printed.

Ed. of Series: I.I. Changli; Ed.: M.P. Krylov, Engineer; Reviewer: S.A. Kolygin, Engineer; Managing Ed. for Literature on Heavy Machine Building: S.Ya. Golovin, Engineer; Ed. of Publishing House: L.A. Osipova; Tech. Ed.: B.I. Model'.

PURPOSE: This booklet is intended for the general reader.

COVERAGE: The booklet considers the prospects for the development of hoisting and transportation machinery construction during the years 1959 - 1965, in accordance with the resolution of the XXI Congress of the Communist Party of the Soviet Union. The book discusses the basic trends of technological development of that branch of machinery construction which provides the means of mechanizing,

Card 1/3

Construction of MLM Hoisting (Cont.)

SOV/4171

loading, unloading, hoisting, and transportation operations in industry, transportation, and other fields of national economy (cranes, conveyers, elevators, escalators, moving sidewalks, electrically operated compound winches, funicular railways, pneumatic conveyers for free-flowing material, etc.) Curves of various industrial statistics are presented and estimates of future requirements are given. The book contains numerous photographs and diagrams of existing and planned large machines and installations. No personalities are mentioned. There are 2 references, both Soviet.

TABLE OF CONTENTS:

Ch. I. Current State of the Art in Hoisting and Transportation Machinery Construction	7
1. Condition of the industry	7
2. Technological state of the art of hoisting and transportation machinery	21
Ch. II. Prospects for the Development of Hoisting and Transportation Machinery Construction During the Years 1959 - 1965	54

Card 2/3

IVANOVSKIY, K.Ye., inzh.; OBOLENSKIY, A.S., inzh.

Piling bridge cranes. Mekh.i avtom.proizv. 14 no.10:53-55 O '60.  
(MIRA 13:10)

(Cranes, derricks, etc.)

OBOLENSKIY, A.S., inzh.; IVANOVSKIY, K.Ye., inzh.

Devices for reloading of piece freight on conveying lines. Mekh.  
i avtom.proizv. 15 no.12:22-27 D '61. (MIRA 14:12)  
(Conveying machinery)

IVANOVSKIY, K.Ye., inzh.

Means for the mechanization of loading and unloading operations.  
Mekh. i avtom. proizv. 17 no.6:46-52 Je '63. (MIRA 16:7)

(Loading and unloading)

IVANOVSKIY, Konstantin Yevgen'yevich; PLAVINSKIY, V.I., kand.  
tekhn. nauk, red.

[Loading and unloading devices for conveyer lines] Pere-  
gruzochnye ustroistva konveiernykh linii. Leningrad, 1964.  
35 p.  
(MIRA 17:9)

CA

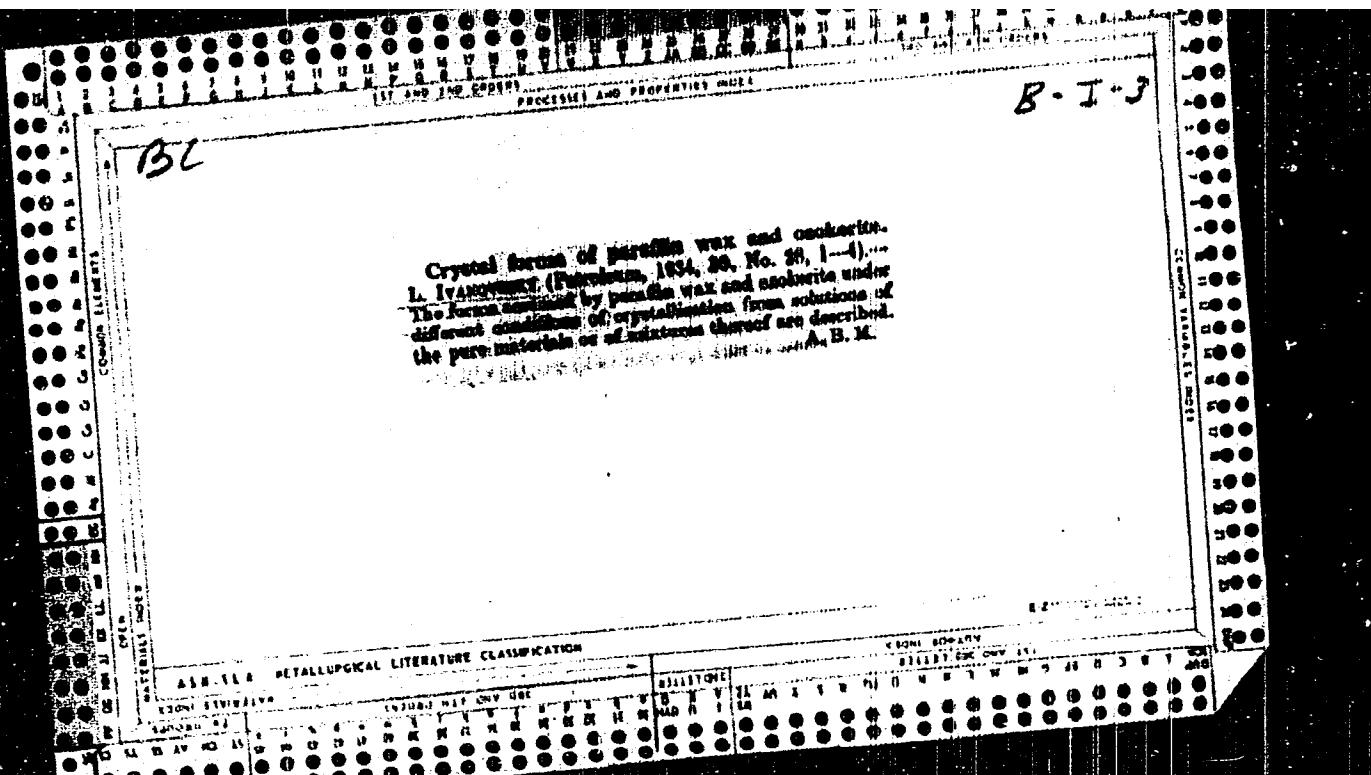
27

The significance and character of the retention of solvents. LEO JANOVSKA, Chem. Listy 26, 331-2(1932). Waxes and carbohydrates resembling waxes decrease the rate of evapn of solvents very markedly. This property is called retentivity ( $R$ ). The retention no. ( $R_g$ ) is defd. by the loss in wt. in 100 g. of a 25% wax in a benzene soln (b. 150-85° leaving under 1% residue) made under identical conditions and exposed to the atm. at 15° in cylindrical dishes with a cross-section area of 133 sq. mm. The retention becomes  $R = 100 : R_g$ . For the retention of pure dil. wax solns the relation  $R_g = f(C_1V)$  holds until satn., where  $C_1$  is the concn. and  $V$  the sp. retention of the dissolved wax. The retention of satd. solns is expressed by  $R_g = A/V_{max}$ . Large series of data show that the  $R$  of sp. waxes is const. within narrow limits and characteristic numerically; it can be used as a criterion for their identification and purity for it is markedly affected by small admns. of foreign waxes. Cf. following abstr. V. M.

CA

27

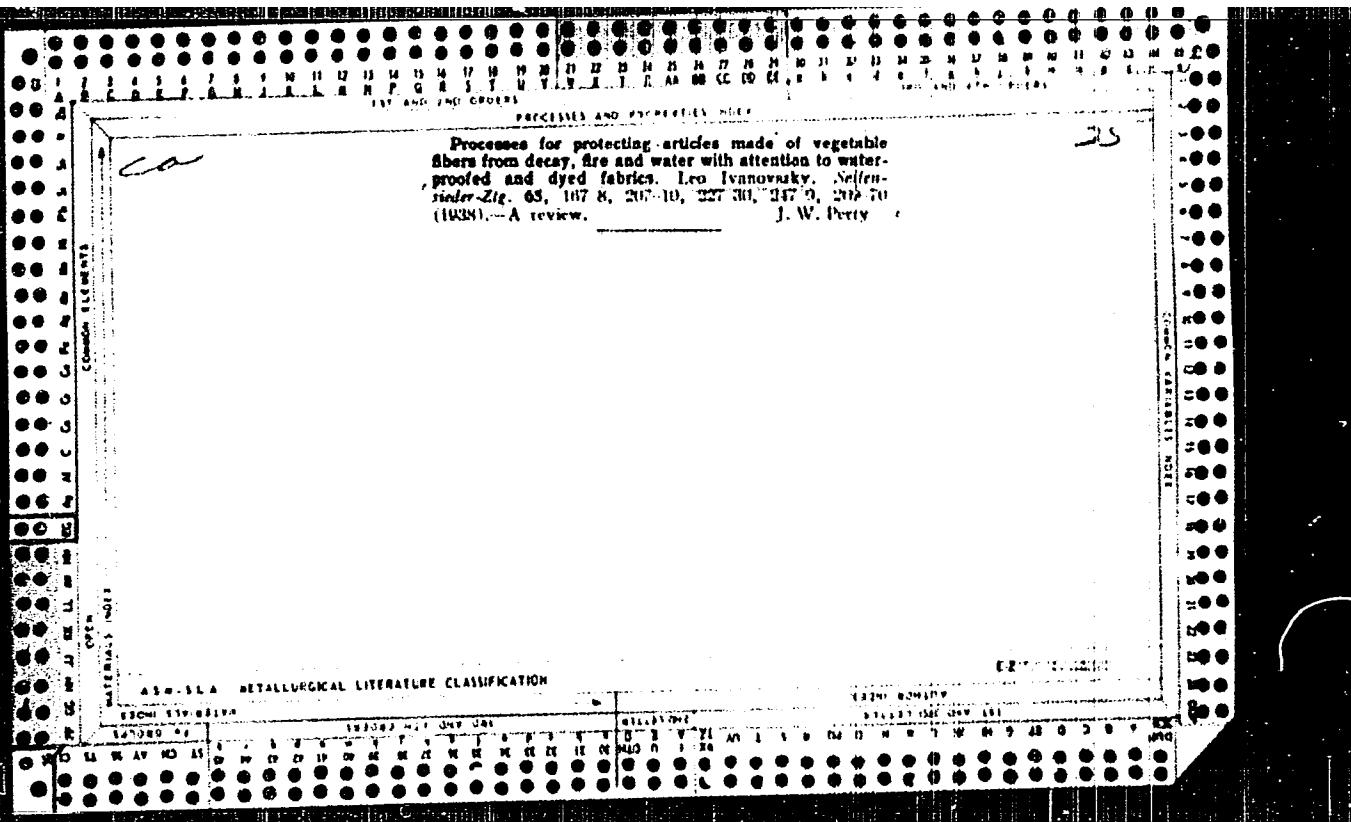
The retention of a solvent as a constant for wax. Two hydrocarbons from Italy 26,332 (1932). The retention nos. ( $R_s$ ) decreased in the following order for the waxes: crude montan, Japan, carnauba, beeswax, refined ozocerite, extra paraffin, hard paraffin, normal paraffin, bleached montan, ozocerite-cerasin mixt., soft paraffin, hard paraffin, refined ozocerite paraffin and beeswax paraffin. The  $R_s$  values depend only on the chem. properties and purity of a wax and are not related to their m.p. The addition of any wax decreased the  $R_s$  values of beeswax. Mixts of paraffin with ozocerite or beeswax show minima in the  $R_s$  curves which allow the evaluation of the purity of ozocerite. The minima appear in the mixt. paraffin 97.5%, ozocerite 2.5%. For mixts. of cerasin and ozocerite it is necessary to add a quantity of paraffin to bring out the minima for the ozocerite content is usually small. The carnauba and montan waxes together with various mixts. of paraffin show no minima; their retention corresponds to the partial retention of 2 components following their percentage content. P.M.



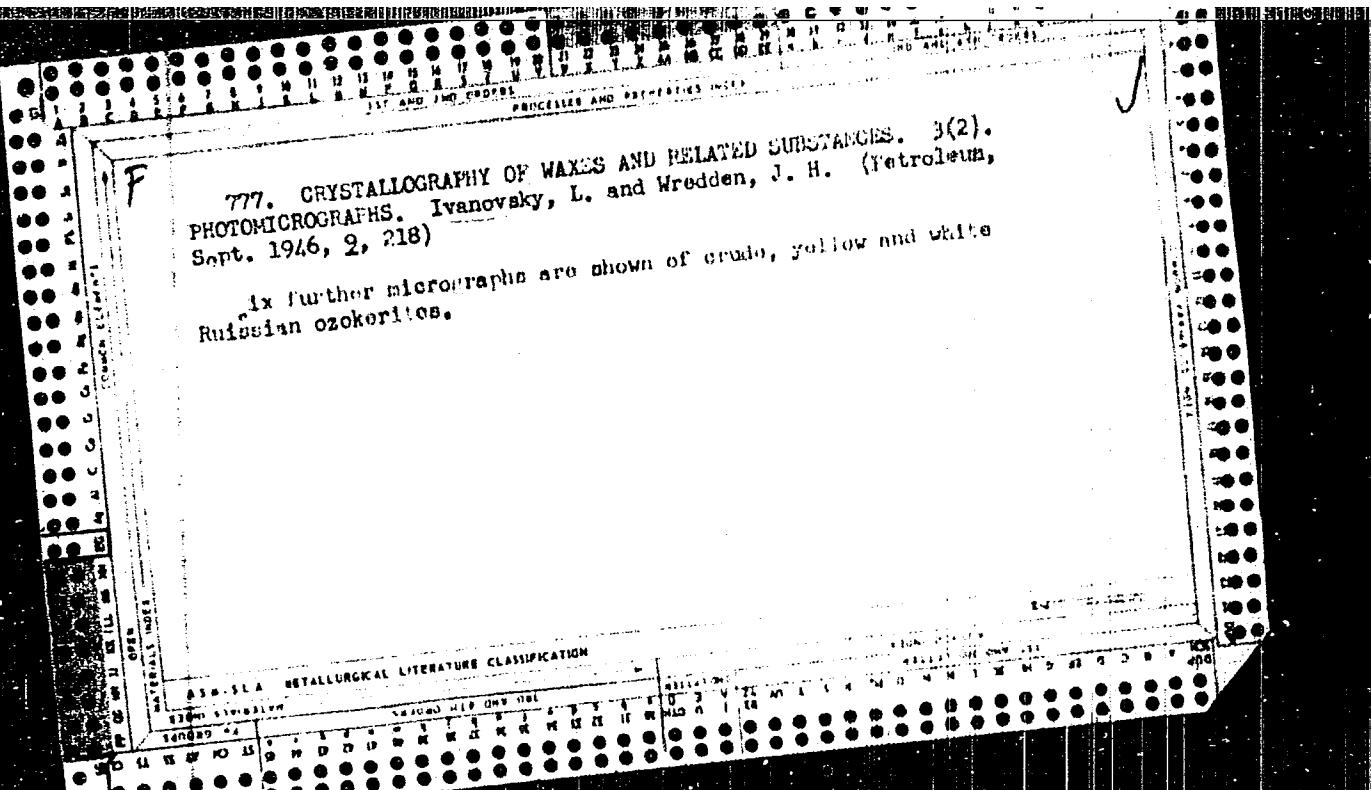
**Material analysts and research chemists in the field of waxes.** — *Techn. Rev. Indus. Chem.*, 7, 328-32 (1930). The chem., compn., of com. waxes in relationship to their colloidal and phys. properties, and potential methods of investigating the quality of com. wax products for various uses are reviewed. J. W. Petty

APPROVED FOR RELEASE: 03/20/2001

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1ST AND 2ND COVERS																																	
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<p style="text-align: right;">25</p> <p><i>Agents for protecting vegetable fibers against rotting</i>  <i>Lev Ivanavsky. Seiferteder-Zig. 65, 327-611KII).</i>      The rotting of hemp cords buried for 32 days in moist garden soil was prevented by impregnating the cords with (1) emulsions of carbolineum contg. either paraffin, ZnCl<sub>2</sub> or ammoniacal Cu oxide or (2) various peptols. contg. Cu. No protection was obtained by impregnating with tannic acid, an emulsion of paraffin and latex, Bamast K soln. and an Al soap-wax emulsion.</p> <p style="text-align: right;">T. W. Petre</p>																																	
<p style="text-align: center;">MATERIALS INDEX</p> <p style="text-align: center;">ASIA-SEA METALLURGICAL LITERATURE CLASSIFICATION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">SEARCHED</td> <td style="width: 25%;">INDEXED</td> <td style="width: 25%;">FILED</td> <td style="width: 25%;">SERIALIZED</td> </tr> <tr> <td>140240 14</td> <td>181003 MAY 1944 JAC</td> <td></td> <td></td> </tr> <tr> <td>G</td> <td>H</td> <td>I</td> <td>J</td> </tr> <tr> <td>K</td> <td>L</td> <td>M</td> <td>N</td> </tr> <tr> <td>O</td> <td>P</td> <td>Q</td> <td>R</td> </tr> <tr> <td>S</td> <td>T</td> <td>U</td> <td>V</td> </tr> <tr> <td>W</td> <td>X</td> <td>Y</td> <td>Z</td> </tr> </table>						SEARCHED	INDEXED	FILED	SERIALIZED	140240 14	181003 MAY 1944 JAC			G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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TIMOFEYEV, Dmitriy Andreyevich; IVANOVSKIY, L.N., kand. geogr.  
nauk, otd. red.

[Middle and lower Olekma Valley; geomorphological analysis  
of the territory of the basin] Sredniaia i Nizhniaia  
Olekma; geomorfologicheskii analiz territorii basseina.  
Moskva, Nauka, 1965. 137 p. (MIRA 19:1)

IVANOVSKIY, L. N.

Glacial Silt in the Quaternary Deposits of the Altay

On the basis of the deductions of V. V. Sapozhnikov ("Katun and Its Sources," Izd. Tomskogo un-ta, bk. 18, 1901) concerning the relation between the large quantity of mud in the rivers of the Altay and valley glaciers, the author considers the quantity of silt particles in varicous pebble terraces of the Chua River (as established by mechanical analysis) and points to the various conditions governing the formation of pebbly heights and low terraces in this valley. The presence of a large percentage of silt in pebbly low terraces and the relation of these terraces with terminal moraines permit one to consider this silt glacial. In pebbly high terraces the percentage content of silt is small, which indicates their formation outside considerations of ancient valley glaciers. (RZhGeol, No. 6, 1955) Vopr. Geografii Sibiri, No. 3, 1953, 195-200

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

RAGOZIN, L.A.; IVANOVSKIY, L.N.

First plenum of the Committee for the Study of the Quaternary Period  
at Tomsk University. Biul.Kom.chetv.per. no.18:116-118 '53. (MLRA 7:5)  
(Geology)

IVANOVSKIY, L. N.

Terraces of the Yenisey Valley from Yeniseysk to the Estuary of the  
Bol'shoy Kas River

The Yenisey river valley in the studied interval (215 kilometers) is asymmetrical: the right high bank is formed by slopes of the Yenisey ridge, and the left bank is a flatland complicated by recent porous detritus. Well-expressed terraces of the left bank are considerably wider than those of the right bank. In all there are 7 terrace levels: 70-80, 45-55, 23-26, 17-19, 10-12, 6-8, 4-5 meters. The terrace 70-80 meters high has a high foundation (socle) crossed by alluvium 2-5 meters thick, its age being provisionally lower quaternary. The 45-55 meter terrace also has a socle-like foundation. Tr. Tomskogo un-ta, ser. geol., 132, 1954, 265-270.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

IVANOVSKIY, L. N.

"Concerning the Commission for the Study of Quaternary Period at Tomsk State University imeni V. V. Kuybyshev," Tr. Tomsk. un-ta, ser. geol., 132, pp 271-272, 1954

The author reports on the organization at Tomsk State University of the Commission for the Study of the Quaternary Period, called to unite the efforts of geologists, geographers, archeologists, botanists, zoologists, paleontologists, and scientists from other specialties in the field of study of the quaternary period. The commission, organized in 1952, will conduct active operations in this direction. During 1953, two large conference-plenums of the commission have been held. (RZhGeol. No 4, 1955)

Sum. No. 681, 7 Oct 55

RAGOZIN, L.A.; IVANOVSKIY, L.N.

Second and third plenum of the Western Siberian Commission on the  
Study of the Quaternary Period held at the Tomsk State University.  
Biul.Kom.chetv.per. no.20:107-109 '55. (MLRA 8:11)  
(Siberia, Western-Geology, Stratigraphic)

IVANOVSKIY, L.N.; RAGOZIN, L.A.

Fifth and sixth plenums of the Commission for the Study of the  
Quaternary period held at Tomsk University. Biul. Kom. chetv. per.  
no.21:154-156 1957. (MLRA 10:6)  
(Siberia, Western--Geology, Stratigraphic)

IVANOVSKIY, L.N.

New data on modern and ancient glaciation of the Terektskiy Range  
in the Altai. Trudy TGU 147:22-33 '57. (MIRA 16:5)

1. Kafedra obshchey geografii Tomskogo gosudarstvennogo universiteta  
imeni V.V.Kuybysheva.  
(Terektskiy Range—Glaciers) (Terektskiy Range—Glacial epoch)

IVANOVSKIY, L.N.

Age of moraines on the northern slope of the Bish-Biry Mountain  
plexus in the Altai. Trudy TGU 147:34-39 '57. (MIRA 16:5)

1. Kafedra obshchey geografii Tomskogo gosudarstvennogo  
universiteta imeni Kuybysheva.  
(Altai Mountains—Moraines)

AUTHOR: Ivanovskiy, L.N.  
TITLE: Earth Pyramids (Zemlyanyye piramidy)  
PERIODICAL: Priroda, 1958, Nr 2, pp 116-117 (USSR)

26-58-2-39/48

ABSTRACT: Earth pyramids are formed on steep slopes by erosion of moraines and other unclassified rocks. Such formations are found in the Altai Mountains and along the Chuy, Argut and Katun' rivers. The top of the pyramid is protected from erosion by wind and water by alluvial or glacial rubble, the rock beneath becomes cemented together and all the surrounding material is washed away to leave the pyramid standing free. Such pyramids have a mushroom shape, but if the rubble becomes washed away from the top, this too is weathered and becomes sharp and dissected. Pyramids are formed most easily on dry, semi-desert slopes. There are 2 photos.

ASSOCIATION: Tomskiy gosudarstvennyy universitet imeni V.V. Kuybysheva  
(Tomsk State University imeni V.V. Kuybyshev)  
Card 1/1 1. Pyramids--Formations 2. Glacier--Deposits--Applications